HISTORIC REVIEW AND UPDATE ON PREVIOUS COMMITTEES

Tom Thorne 8 April 2004

Brucellosis has a long history in the Greater Yellowstone Area; present for at least 100 years.

Thorne attended his first meeting on brucellosis in the spring of 1971 in Gardiner, MT

- It was not the first meeting on brucellosis
- The meeting was very acrimonious
- Conflict characterized brucellosis meetings

Brucellosis-related issues in the 1960s and 1970s were characterized by conflicts, lines drawn in the sand, and positions set in concrete!

- Most conflict and attention was focused on bison of Yellowstone National Park
- National Park Service (YNP) vs. federal and state veterinarians and stock growers
- Conflicting mandates between YNP, state livestock health officials, and APHIS/Veterinary Services
- YNP reacted to previous proposals of depopulation or test and slaughter, did not recognize brucellosis as introduced disease, resisted disease management

Scope of brucellosis in elk as a problem only beginning to be recognized and acknowledged in the 1970s

- Brucellosis first detected in elk at National Elk Refuge in 1930
- Detected at Greys River elk feedground and a couple of other elk feedgrounds in the 1940s, but was largely ignored by the Game and Fish Department and state and federal livestock health officials
- APHIS and State Vet had recognized a persistent brucellosis problem in a small cattle herd adjacent to the Greys River (Alpine) feedground

In the 1970s, G & F began extensive testing at Alpine and NER feedgrounds; less extensive testing at other feedgrounds

- Brucellosis was consistently present at high prevalence everywhere G & F looked on feedgrounds

G & F started controlled research on brucellosis in elk at the Sybille Wildlife Research and Conservation Education Center in 1971-72

- Effects of brucellosis in elk similar to those seen in cattle with a few minor exceptions: Elk seem to be more resistant to brucellosis than cattle; Elk experience an approximate 50% abortion rate compared to 60-70% in

unvaccinated cattle; Elk experience a slightly slower and weaker serologic response than cattle; Elk do not have retained placenta and concomitant infertility following abortion
- Research was partly funded by APHIS, but mostly funded by G & F
- Brucellosis research was done with extensive advice and input by APHIS experts on brucellosis (e.g. Dr. Wynn Ray, etc.), University of Wyoming scientists, and national and international brucellosis scientists and regulatory officials
- Research endorsed by Wyoming Stock Growers Association, progress reported to WSGA, elk to cattle transmission study done at request of WSGA
- G & F, WSGA, and UW tried to get federal funding to establish a bison research facility either at Laramie or Sybille, but were unsuccessful

By mid to late 1970s research at Sybille and testing on feedgrounds had demonstrated effects of brucellosis on elk and that it can be transmitted to cattle; concluded:

- Brucellosis is an introduced disease in elk that has a negative impact on elk and should be addressed
- Brucellosis-infected elk serve as a threat to cattle and, therefore, to the National Brucellosis Eradication Program
- G & F should initiate research on vaccination of elk with Strain 19 vaccine (the only vaccine available at that time) to determine if vaccination can be used as a tool to control/eliminate brucellosis in elk

By 1985 concluded vaccine is safe in elk if use a correct dose (reduced) and that it is about as effective in elk as it is in cattle at preventing abortion

- Started trial vaccination of free-ranging feedground elk using a biobullet system at Alpine feedground in 1985
- The rationale behind vaccination was that Strain 19 vaccine would reduce the abortion rate among infected feedground elk; this would result in reduced transmission among elk and reduced risk to cattle; reduced transmission among elk would eventually result in reduced prevalence among feedground elk
- Over a long period, it might be possible to reduce the prevalence to a low enough level that innate resistance of elk might help eliminate the disease; or the prevalence could be lowered to the point that some other mean (e.g. limited test and slaughter) could be used without destroying the elk populations
- It was recognized that vaccination would be a long-term endeavor

In 1985 Wyoming received its brucellosis-free status under the National Brucellosis Eradication Program

- Wyoming's achievement of brucellosis-free status, along with a national goal of eradication within the next 5-10 years, resulted in increased attention to brucellosis in bison and elk in the GYA; this attention would continue to grow

June 1988 Tri-state Veterinary Meeting in Jackson, WY

- Tri-state Yellowstone National Park Brucellosis Meeting recommended forming Tri-state Brucellosis Technical Committee
- First meeting of Tri-state Brucellosis Technical Committee in October 1988 in Little Rock, AR at U S Animal Health Association meeting
- Technical Committee met 1-2 times per year
- Technical Committee had no authority, but did serve to begin to establish dialogue and understanding among agencies and parties

1988-89 Parker Land and Cattle bovine brucellosis outbreak

- East of continental divide near Dubois, WY
- Wyoming, Montana, and most of country free of bovine brucellosis
- After extensive epidemiologic investigation, APHIS determined source to be elk or bison
- Litigation resulted in form of damage claim against G & F that eventually went to State Supreme Court; ruled that not compensable, source likely elk or bison but unable to determine if wildlife source was under state or federal jurisdiction
- Subsequent litigation against Department of Interior for damages; Federal Judge Brimmer ruled not compensable, that elk or bison were the likely source but couldn't determine jurisdiction, was complimentary of G & F brucellosis program and critical of Department of Interior brucellosis efforts

May 1999, Governor Sullivan established Wyoming Brucellosis Task Force

- State Veterinarian-Dr. Norm Swanson succeeded by Dr. Don Bosman
- Governor's Office-Rod Miller
- Wyoming Department of Agriculture-Director Don Rolston
- Game and Fish Department-Director Pete Petera, Chief of Services Art Reese, and Wildlife Veterinarian Supervisor Tom Thorne
- Wyoming Livestock Board-Glenn Taylor and Ed Stukenhoff
- Wyoming Wildlife Federation and sportsmen-Tory Taylor
- Wyoming Stock Growers Association-Bob Budd

Wyoming Brucellosis Task Force established task force goal

- "Protect the integrity of Wyoming's free-ranging bison and elk populations and livestock industry by eradicating wildlife brucellosis by the year 2010"
- Task force recognized a number of problems stand in the way of achieving this goal
- Task force recognized the problem involves the entire GYA, not just Wyoming, and it affects all the federal and state wildlife management, land management, and animal health agencies along with stock grower and conservation organizations in the three affected states

Wyoming Brucellosis Task Force made 47 recommendations under 12 categories; many of the recommendations have been accomplished or are ongoing; many other

recommendations should be revisited by the Wyoming Brucellosis Coordination Team, G & F, or other entity and are listed below:

- Establish a national consensus and federal legislation assuring the GYA brucellosis problem will be solved and sufficient funding
- Establish agency policies compatible with recommended objectives
- Complete G & F elk and bison Brucellosis Herd Unit Action Plans and include thorough evaluations of site-specific public and private lands where brucellosis-infected wildlife and livestock commingle
- Establish rankings of Risk of Transmission for all areas on infected wildlife and livestock commingling and categorize each as relatively high, moderate, or low risk of transmission; high risk areas will be given highest priority in actions to reduce the potential for transmission
- Make timely report with site-specific recommendations for each instance of commingling between brucellosis infected wildlife and livestock on how the risk of brucellosis transmission will be eliminated or significantly reduced
- Use G & F Brucellosis-Feedground-Habitat specific Brucellosis Herd Unit Action Plans as pattern to form region-wide, but site specific, actions plans integrated to fit the GYA
- Consider impacts compensation might have on eradication because compensation could be cheaper than eradication
- Conduct blood test surveys on hunter-killed elk and bison of all populations surrounding the GYA to more accurately establish the geographic area involved
- Vaccination of high percentages of elk on a feedground should be achieved for several years before action is taken that will result in reduced use of feedgrounds by elk
- Separate for better administrative and public understanding the two aspects and goals of calfhood vaccination of cattle and vaccination of elk and bison
- All possible short-term and long-term methods that can be implemented to prevent transmission of brucellosis from wildlife to cattle should be examined, and where appropriate, implemented as soon as possible
- Recognize that vaccination of wildlife might not be as effective in reducing brucellosis prevalence in a short period of time as test and slaughter/depopulation, but it is much more likely to be acceptable, and is likely the only option that does not adversely impact one user group or another
- Authorized elk feedgrounds are unique in the GYA to Wyoming and Wyoming Game and Fish Department should take the lead in evaluating and explaining the relationship between feedground, brucellosis, and native winter range
- Wyoming Game and Fish Department utilize established Brucellosis-Feedground-Habitat Action Plan process to examine each feedground and management options that might reduce intra- and inter-specific transmission of brucellosis
- Encourage Wyoming Game and Fish Department habitat enhancement projects and allow time to demonstrate their potential for attracting and supporting elk
- Eliminate or reduce the reliance on elk feedgrounds, with the following considerations: public acceptance; effects on Herd Unit population objectives; effects upon livestock forage and stored feeds; effects upon risk of transmission of

brucellosis to livestock; and effects and costs of increased depredation on cash crops
- Where possible as determined by Herd Unit Action Plans feed only during severe winters and delay feeding until winter conditions are severe
- Work to establish legislation supported by livestock, outfitter, and conservation interest groups prohibiting unauthorized private feeding of elk and bison
- Propose legislation to modify existing damage laws to lessen or reduce the liability associated with elk depredation on stored feeds in order to allow reduction in reliance on feedgrounds
- Complete the Wyoming Game and Fish Department's Herd Unit Action Plan process and include a thorough evaluation of each feedground and the presence and absence of current future alternatives to feedgrounds
- Evaluate public, political, economic, and biological ramifications of reducing elk numbers to match available native winger range
- Evaluate a forage compensation program that would encourage increased landowner accommodation of elk on private land
- All agencies work cooperatively to protect wildlife winter ranges from deleterious development or winter recreation activities
- Consider herd units in which feeding does not occur and examine methods to ensure that feeding does not become necessary
- Identify research needs and solicit funding

In 1995 the MOU establishing the Greater Yellowstone Interagency Brucellosis Committee, recommended by the Wyoming Brucellosis Task Force, was signed by the Secretaries of Interior and Agriculture and Governors of Wyoming, Montana, and Idaho

- Early meetings were difficult and acrimonious
- Sponsored two symposia on brucellosis in the GYA and published proceedings (with help of G & F)
- Wrote and adopted an informative white paper on brucellosis in the GYA
- Adopted a resolution recommending against new feedgrounds in the GYA
- Information and Education Plan for Citizen Participation
- Video on brucellosis in GYA
- Extensive summary of research completed, ongoing, and needed
- Extensive literature data base
- Technical reports on male transmission of brucellosis, brucellosis in horses, vaccine safety and efficacy, etc.
- Task Directive for a Programmatic EIS
- Established and maintained communications/understanding/dialogue/cooperation among member agencies probably most significant accomplishment
- Currently rewriting MOU which will more aggressively address elimination of brucellosis and will provide for Tribal involvement